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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Yuichi Bannai

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EXAMINER

HOOSAIN, ALLAN

ART UNIT

PAPER NUMBER

2645

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DATE MAILED: 07/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/944,070

Applicant(s)

BANNAI ET AL.

Examiner

Allan Hoosain

Art Unit

2645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 September 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 2 recites the limitation "the electrical power supply" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.
3. Claim 4 recites the limitation "the electrical power supply" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2,6-8,10-13,15-16,21-23,25-37 are rejected under 35 U.S.C. 102(e) as being anticipated by **Mitchell et al.** (US 6,697,894).

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As to Claim 1, with respect to Figure 1, **Mitchell** teaches a personal information terminal comprising:

a data display means, 108, 112, including an enlarging optical system (Col. 9, lines 7-13);

an input means for receiving instructions from a user (Col. 9, lines 33-37,53-57);

a radio communications means for connecting to a network (Col. 9, lines 58-60); and

a control means for obtaining information from the network through the radio means and displaying the information on the data display means, based on instructions from the input means (Col. 9, lines 26-43).

As to Claim 2, **Mitchell** teaches a personal information terminal according to Claim 1, wherein the control means limits the electrical power supply to the data display means to video as needed (an amount) which is less than screen display (an amount) at a normal time while the control means is obtaining the audio and task information from the network through the radio means (Col. 15, lines 48-52, Col. 16, lines 54-59).

As to Claim 4, **Mitchell** teaches a personal information terminal according to claim 3, wherein the control means cuts off the video display as needed (electrical power supply) to the illumination device while the control means is obtaining the information from the network through the radio means (Col. 15, lines 48-52).

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As to Claim 5, **Mitchell** teaches a personal information terminal according to Claim 3, wherein the control means turns the liquid crystal display device onto video as needed (a low energy consumption mode) while the control means is obtaining the information from the network through the radio means (Col. 15, lines 48-52).

As to Claim 6, **Mitchell** teaches a personal information terminal according to Claim 1, wherein the input means is a keyboard input (a push button switch) (Col. 6, lines 46-48).

As to Claims 7-8, with respect to Figure 1, **Mitchell** teaches a personal information terminal comprising:

- an ocular-type data display means arranged within a frame of a window and having an enlarging optical system (Col. 9, lines 7-13);

- an input means for receiving instructions from a user (Col. 9, lines 33-37, 54-57);

- a radio communications means for connecting to a network (Col. 9, lines 58-65);

- a control means for obtaining information from the network through the radio means and making the information be displayed on the data display means, based on instructions from the input means (Col. 9, lines 27-43); and

- a pop-up window (notifying means) for providing a notification to a user at least as to whether the control means is in a Find state of obtaining information from the network through the radio means or not the notifying means being arranged outside HTML page (the frame of the window) (Col. 14, lines 8-18 and Col. 15, lines 48-58).

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As to Claims 10-11, **Mitchell** teaches a personal information terminal according to Claim 7, wherein the notification means makes the notification auditorily (Col. 9, lines 37-43).

As to Claim 12, **Mitchell** teaches a personal information terminal according to Claim 7, wherein the notification means provides notification to the user as to whether the control means is in a state of obtaining information from the network through the radio means, or whether it is in a state of displaying the obtained information on the data display means (Col. 15, lines 25-31).

As to Claim 13, **Mitchell** teaches a personal information terminal according to Claim 12, wherein the notification means further provides notifications to the user as to whether the radio means is in a state of having ended the network connection normally, or whether the radio means is in a state of having ended the network connection abnormally (Col. 15, lines 52-58).

As to Claims 15-16, **Mitchell** teaches a personal information terminal according to Claim 1, wherein the input means is comprised of a moving means for moving a cursor position on a display screen of the data display means; and wherein a starting means for starting a process corresponding to information on the display screen where the cursor is located (Col. 6, lines 41-48).

As to Claims 21-23, **Mitchell** teaches a personal information terminal according to Claim 1, wherein the data display means is arranged within a frame of a display window provided to a housing of the personal information terminal, and the input means is provided on the personal

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information terminal housing, and a surface of the display window and a surface of the housing where the input means is arranged are parallel (Col. 11, lines 57-60).

As to Claim 25, **Mitchell** teaches a personal information terminal according to Claim 7, wherein the window frame is provided to a housing of the personal information terminal, and the notification means is arranged either on a surface of the housing where the window frame is provided, or on a surface of the housing that is perpendicular to the housing surface where the window is provided (Col. 11, lines 57-60).

As to Claims 26-28, with respect to Figures 1-3, **Mitchell** teaches activation of video as needed (an energy-consumption reduction method) to be applied in a personal information terminal having a data display means including an enlarging optical system, an input means for receiving instructions from a user and a radio communications means for connecting to a network, the method comprising:

- an information obtaining step of obtaining information from the network through the radio means based on instructions from the input means (Col. 15, lines 21-31);

- a display step of displaying the information obtained in the information obtaining step on the data display means (Col. 15, lines 39-47); and

- a limiting step of limiting video display (an amount of the electrical power supply) to the data display means while audio and task information is being obtained from the network through the radio means at the information obtaining step, the video display amount being less than the screen display (an amount at a normal time) (Col. 15, lines 48-52).

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As to Claims 29-37, with respect to Figures 1-7, **Mitchell** teaches a status notification method to be applied in a personal information terminal having an ocular-type data display means arranged within a frame of a window and having an enlarging optical system, an input means for receiving instructions from a user, a radio communications means for connecting to a network and a notifying means arranged outside the frame of the window, comprising of:

an information obtaining step obtaining information from the network through the radio means based on instructions from the input means (Col. 15, lines 21-31);

a display step of displaying the information obtained in the obtaining step on the data display means (Col. 15, lines 39-47); and

a notifying step of providing a notification to a user at least as to whether information is being obtained from the network through the radio means or not by means of a notification means (Col. 14, lines 1-18 and Col. 15, lines 39-47).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to

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the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 3,9,14,24 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mitchell** in view of **Zavracky et al.** (US 6,097,352).

As to Claims 3,14, **Mitchell** teaches a personal information terminal according to Claim 1, wherein the data display means is an ocular type data device comprising of a liquid crystal display device and an illumination device:

Mitchell does not teach the following limitation:

“a prism”

However, it is obvious that **Mitchell** suggests the limitation. This is because **Mitchell** teaches ocular systems (Col. 9, lines 7-9). **Zavracky** teaches ocular head mounted displays with prisms (Figures 5,31 and Col. 25, lines 13-15). Since, **Mitchell** and **Zavracky** are in analogous ocular display art, it would have been obvious to one of ordinary skill in the art to add prism capability to **Mitchell**'s invention for focusing light rays as taught by **Zavracky**'s invention in order to provide projected images to a user.

As to Claim 9, **Mitchell** teaches a personal information terminal according to Claim 8, wherein the notification means comprises:

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Mitchell does not teach the following limitation:

“a light emitting diode capable of emitting light of a plurality of colors”

Zavracky teaches ocular head mounted displays with color LEDs (Figure 21 and Col. 21, lines 28-35). Since, **Mitchell** and **Zavracky** are in analogous ocular display art, it would have been obvious to one of ordinary skill in the art to add color LED capability to **Mitchell's** invention for color illumination as taught by **Zavracky's** invention in order to provide projected images to a user.

As to Claim 24, **Mitchell** teaches a personal information terminal according to Claim 1, wherein the data display means is arranged within a frame of a display window provided to a housing of the personal information terminal, and:

Mitchell does not teach the following limitation:

“an area around the display window frame is black”

Zavracky teaches displays with black areas (Figure 4 and Col. 9, lines 46-50). Since, **Mitchell** and **Zavracky** are in analogous ocular display art, it would have been obvious to one of ordinary skill in the art to add black bands capability to **Mitchell's** invention for color selection flexibility as taught by **Zavracky's** invention in order to provide projected images to a user.

9. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mitchell** in view of **Horvitz et al.** (US 6,023,275).

As to Claims 17-20, **Mitchell** teaches a personal information terminal according to Claim 15,

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Mitchell does not teach the following limitations:

“wherein the data display means is lodged within a frame of a display window provided to a housing of the personal information terminal, wherein the moving means is arranged on a side of the personal information terminal housing that the display window frame is located on, and wherein the starting means is arranged on a side opposite from the side that the display window frame is located on”

However, it is obvious that **Mitchell** suggests the limitation. This is because **Mitchell** teaches a computer display with keyboard, mouse or other input mechanisms (Col. 14, lines 24-25). **Horvitz** teaches a computer with the limitations (Figure 1). Since **Mitchell** and **Horvitz** are in analogous computer display art, it would have been obvious to one of ordinary skill in the art to add the computer capability to **Mitchell**'s invention for showing display arrangements as taught by **Horvitz**'s invention in order to provide computer displays.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hanano (US 6,185,045) teach an image display apparatus with ocular modification displays.

Saikawa et al. (US 5,986,813) teach a head mounted display with wireless connection capability.

11. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231
or faxed to:

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(703) 872-9314, (for formal communications intended for entry)

Or:

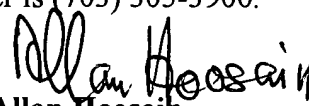
(703) 306-0377 (for customer service assistance)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Allan Hoosain** whose telephone number is (703) 305-4012. The examiner can normally be reached on Monday to Friday from 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Fan Tsang**, can be reached on (703) 305-4895.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.


Allan Hoosain
Primary Examiner
7/7/04